

Historic, archived document

Do not assume content reflects current scientific knowledge, policies, or practices.

67
678
VOL. 10 No. 28

JULY 8, 1960



Cooperative ECONOMIC INSECT REPORT

Issued by

PLANT PEST CONTROL DIVISION

AGRICULTURAL RESEARCH SERVICE

UNITED STATES DEPARTMENT OF AGRICULTURE

AGRICULTURAL RESEARCH SERVICE

PLANT PEST CONTROL DIVISION

SURVEY AND DETECTION OPERATIONS

The Cooperative Economic Insect Report is issued weekly as a service to American Agriculture. Its contents are compiled from information supplied by cooperating State, Federal, and industrial entomologists and other agricultural workers. In releasing this material the Division serves as a clearinghouse and does not assume responsibility for accuracy of the material.

Reports and inquiries pertaining to this release should be mailed to:

Survey and Detection Operations
Plant Pest Control Division
Agricultural Research Service
United States Department of Agriculture
Washington 25, D. C.

COOPERATIVE ECONOMIC INSECT REPORT

Highlights of Insect Conditions

Heavy GRASSHOPPER infestations reported in areas of Oregon, Texas and North Dakota. (p. 611). MORMON CRICKET baited for control on 2,400 acres of rangeland in Arlington area of Oregon. Larval infestations of EUROPEAN CORN BORER reported over wide area; percent infestation at some localities recorded as follows: 15-60 in Hudson Valley, New York; 10-54 on Eastern Shore of Maryland; 65 in Carroll County, Indiana; 24-47 in Illinois; 10-65 in Missouri; and 50 in northern Alabama. (p. 612). BLACK CUTWORM continues to damage corn in several states. (p. 612). CORN EARWORM light to moderate in corn on Eastern Shore of Maryland and ARMYWORM reported damaging to wheat in areas of Iowa and Nebraska. High CORN LEAF APHID infestations in North Dakota reduced by syrphid larvae. (p. 613). A CORN LEAF MINER caused economic damage to 1,200-1,500 acres of sweet corn in Connecticut (p. 614) and a CHINCH BUG reported heavily damaging St. Augustine grass lawns in Alabama and Louisiana (p. 615).

THRIPS damaging leaves of soybeans in Delaware, Maryland and Kansas; of concern on peanuts in Oklahoma; and very numerous on alfalfa in areas of Utah and California. (p. 615). WEBWORMS reported damaging in areas of South Dakota, Nebraska, Oklahoma and Texas. (p. 616). CLOVER SEED WEEVIL heavy on clovers in areas of California and Idaho. (p. 617).

FALL WEBWORM infestation heaviest in several years on pecans in Louisiana. (p. 620).

COLORADO POTATO BEETLE larvae taken in North Dakota and adults abundant in upper Snake River Valley of Idaho. (p. 621). EUROPEAN CORN BORER damage to potatoes heavy on Eastern Shore of Maryland and noticeable in Delaware. PEA APHID building up on peas in west central area of Idaho. (p. 622). CABBAGEWORMS seriously damage cabbage in central Iowa. (p. 623).

First-generation BOLL WEEVIL appeared in a number of states. Infestations generally low; reported damaging in some cotton in Florence area of South Carolina and in some areas of Texas. (p. 624). COTTON FLEAHOPPER continues damaging in southwestern Oklahoma and in north central and northeast Texas. TARNISHED PLANT BUG is major pest of cotton in delta area of Mississippi. (p. 625).

ELM LEAF BEETLE abundant on elms in areas of Illinois and Oklahoma and FOREST TENT CATERPILLAR seriously weakened tupelo and gum trees on an estimated 500,000 acres in Alabama and Louisiana. (p. 627). Webs of MIMOSA WEBWORM becoming noticeable in Delaware and Maryland. (p. 629). Distribution of GOUTY PITCH MIDGE in the United States (map). (p. 628).

FACE FLY found widespread in Connecticut and reported causing a 20-percent loss of milk production in a herd of dairy cattle in central area of New Jersey. (p. 630).

JAPANESE BEETLE emergence and activity reported general in Eastern United States. Treatments around airports underway in several states. (p. 631-32).

CORRECTIONS (p. 632).

INSECT DETECTION: New state records reported were a weevil (Barypeithes pellucidus) in Indiana and a thrips (Chirothrips aculeatus) in Idaho. (p. 624). New county records reported were alfalfa weevil in Transylvania County, North Carolina (p. 617), and a psychid (Apterona crenulella) in El Dorado County, California (p. 632).

Reports in this issue are for the week ending July 1, unless otherwise indicated.

WEATHER BUREAU 30-DAY OUTLOOK

JULY 1960

The Weather Bureau's 30-day outlook for July calls for temperatures to average above seasonal normals in the southern half of the country and also along the Atlantic Coast. Below normal averages are predicted over the Great Lakes region, the Northern Plains, and the Pacific Northwest. In the remainder of the Nation temperatures should average near normal. Rainfall is expected to exceed normal in the northern third of the Nation. Subnormal amounts are anticipated in the Southeast, the southern Rocky Mountain States, and the extreme Southwest. In areas not specified rainfall should not be far from normal.

Weather forecast given here is based on the official 30-day "Resume and Outlook" published twice a month by the Weather Bureau. You can subscribe through Superintendent of Documents, Washington 25, D. C. Price \$4.80 a year, \$2.40 a half year.

WEATHER OF THE WEEK ENDING JULY 4

The week's mean temperatures were slightly below normal along the Pacific Coast from Washington to central California, over Nevada, along the Texas coast, and from the northern Great Plains to western New York, Pennsylvania, the Carolinas, and Georgia. Above normal readings were general in New England, most of the east Gulf, and lower Mississippi Valley States, and in the Rocky Mountains, Southern Plateau, and southern Great Plains. Temperatures in all except the latter area averaged close to the seasonal normal. The largest departures from normal were centered in the west Texas-eastern New Mexico region where readings averaged 6 to 9 degrees above normal, as over 100 degree afternoon temperatures were common throughout the week. Cool Canadian air was present in the north central states most of the week, pushed southward over the central and eastern states late in the week, leaving weekly mean temperatures 3 degrees or more below normal in the northern Great Plains and portions of the Middle West and Great Lakes region.

Significant precipitation in agricultural areas west of the central Great Plains and the lower Mississippi Valley was absent during the week. Over the holiday weekend heavy rains developed from western Kansas southward through Oklahoma to the high plains of Texas and New Mexico providing generous amounts of moisture in many places. Heavy local thunderstorms in the Southern States provided temporary relief from extremely dry conditions particularly in central Florida. General rains are still needed in most sections, however, for proper crop and pasture development. Locally, excessive precipitation was again recorded in the Ohio and central Mississippi Valleys and the Great Lakes region extending to the Middle Atlantic States and New England on several days. Extensive areas of severe thunderstorms, many with hail, high winds and flooding in the Middle West, totaled several million dollars. (Summary supplied by U. S. Weather Bureau).

CEREAL AND FORAGE INSECTS

GRASSHOPPERS - OREGON - Heavy infestation of Melanoplus packardii, 10-15 per square yard, present from Willow Creek, Morrow County, to Ordance, Umatilla County; an area 4 by 20 miles in extent; 80 percent of adults on June 19. Oedaleonotus enigma infesting sections in area averaging 15 per square yard in southeast portion of bombin range in Morrow County; were adults on June 19. (Chinn). UTAH - Grasshoppers damaging alfalfa and spring grains growing adjacent to soil bank land in Snowville and Blue Creek areas of Box Elder County and pasture damage by Camnula pellucida increased in south Richfield area of Severe County and in Manti-Ephraim area of Sanpete County. (Thornley, Knowlton). WYOMING - Grasshoppers beginning seasonal decline at Glendo study area. Predators working on population. First adults of Cordillacris occipitalis seen. (Pfadt, June 24). TEXAS - Predominant grasshoppers on soil bank land in panhandle area are Aeoloplides turnbulli bruneri, with M. bivittatus, M. occidentalis, M. bilituratus and M. packardii making up the complex. (PPC) On June 20 in Deaf Smith County, heavy migrations of A. turnbulli bruneri observed in wheat fields from soil bank land. Mass air movements observed during afternoon, with adults high in the air. (Russell). M. differentialis present in damaging numbers in Tom Green County and surrounding areas. (Boyd). OKLAHOMA - Grasshopper populations continue generally light on rangeland in western half of State, with a few isolated localities having higher counts and causing considerable local concern. Counts in southwest were mostly 3-4 per square yard on range areas and 7-10 per square yard in Harper County, northwest. Heavy populations reported on rangeland area of Kingfisher County. (Hudson, Hatfield, Owens, Bollenbach, VanCleave). SOUTH DAKOTA - Grasshoppers number 10-35 per square yard in Elk Mountain range in western Custer County; Aulocara elliotti dominant species. Grasshoppers numerous in spots along roadsides and field margins in central area. (Burge). Light in margin areas, roadsides and soil bank land in northeast and north central areas. (Mast). NORTH DAKOTA - Rangeland survey in southwest showed threatening to severe grasshopper infestations on 5,000 acres in Slope County and 1,200 acres in Golden Valley County. In northwest, a 4,000-acre tract near Williston, Williams County, showed similar infestation levels. Cooperative control programs will not be initiated this season. Grasshopper counts average 30-40 nymphs per square yard. Dominant species in southwest include Ageneotettix deorum, followed by A. elliotti, Amphitornus coloradus and M. confusus. In northwest, A. deorum is dominant, 70 percent, and M. bilituratus comprised 20 percent of population. Except for area mentioned, infestations in open range noneconomic. Development ranges from first to fifth instars; however, major population consists of first and second-instar nymphs. Adults of M. confusus present in southwest. Limited cropland survey in southwest showed scattered threatening roadside and field margin infestations. M. bivittatus dominant followed by M. bilituratus. Survey in Red River Valley counties showed mostly noneconomic infestations. (N. D. Ins. Sur.). MINNESOTA - Peak hatch of M. femur-rubrum occurred in southern half of State; populations generally light with only a few fields in southwest showing threatening numbers. M. bivittatus in third to fifth instar; counts low in southeast, south central and southwest. (Minn. Ins. Rpt.). WISCONSIN - Second to fifth-instar nymphs of M. bilituratus dominate species in wastelands and roadsides of Oconto and Marinette Counties; 12 nymphs per square yard recorded in alfalfa field. Hatching of M. femur-rubrum continues slow. (Wis. Coop. Sur.). ILLINOIS - Grasshoppers, mainly first-instar nymphs, varied 0-41 (average 17.6) per square yard in central section on grassy roadsides and 0-9 (average 3.4) per square yard in western section. Heavy rains apparently killing most nymphs before they reach second instar. (Ill. Ins. Rpt.). INDIANA - Nymphs of Melanoplus sp. swept from roadsides and alfalfa in Marshall County; counts in localized areas average 10-15 per square yard in alfalfa and 20 per square yard in field margins. (Wilson, Florentine). Nymphs of Melanoplus sp. also observed along roadsides, fence rows and field margins in localized areas of St. Joseph and Marshall Counties; counts average 10-20 per square yard. (Matthew).

MORMON CRICKET (Anabrus simplex) - OREGON - Total of 1,200 acres strip baited for control on 2,400 acres of rangeland in Arlington area June 20-21. Kill estimated at over 80 percent. (Chinn).

EUROPEAN CORN BORER (Pyrausta nubilalis) - NEW YORK - In Hudson Valley, larvae, ranging to fourth instar, moving from tassel to stalk in sweet corn. On untreated corn, still in whorl, leaf injury conspicuous and tiny larvae found in whorls. Percentages of untreated plants infested ran 15-60 or more. In mid-Hudson Valley area, first-brood hatching should be ended by July 7. Moths flying in Ithaca area and egg laying underway. Larvae feeding in tassels of corn in Nassau and Monroe Counties and first eggs noted on June 22 in Erie County. (N.Y. Wkly. Rpt., June 27). MARYLAND - Larval infestations ranged 10-54 percent in late field and sweet corn on Eastern Shore; lighter in later corn. (U. Md., Ent. Dept.). DELAWARE - Larvae present in field corn in Kent and Sussex Counties. (Burbutis, Mason). OHIO - Infestation of first brood very light in central area. (Triplehorn). MICHIGAN - Eggs very abundant in Berrien and Van Buren Counties on June 21; about one week later than usual. (Hutson). INDIANA - In Carroll County corn 48-54 inches tall, 65 percent of stalks showed shot-hole injury. (Gould). Counts in Marshall and St. Joseph Counties, north central area, showed 8-24 percent plant infestation. (Matthew). ILLINOIS - Moth emergence complete except in extreme northern area, where 0-16 percent still in pupal stage. South of Highway 36, all eggs hatched and larvae first to third instar. From 10-100 percent (average 40) of plants 55-72 inches high (leaves extended) infested, with 0-10 (average 2) larvae per infested plant. Between Highway 36 and Highway 17, about 60-70 percent of egg masses hatched and larvae in first to third instar. Corn 40-63 inches high (leaves extended) shows 0-80 percent (average 24) of plants infested, with 0-12.5 (average 2.4) larvae per infested plant. North of Highway 17, about 30-50 percent of eggs hatched and larvae in first and second instar. Many eggs still being laid in this area. Corn 30-63 inches high (leaves extended) 0-100 percent infested (average 47), with 0-17 (average 4) larvae per infested plant. In general, populations concentrated in western half of State. (Ill. Ins. Rpt.). WISCONSIN - Some leaf feeding observed in few advanced fields in Walworth and Green Counties. (Wis. Coop. Sur.). MINNESOTA - Moth emergence in southern half of State nearly complete. Egg mass counts vary greatly from field to field; taller corn with greater numbers. Many fields have no egg masses; highest count in southwest (52 per 100 plants). Peak deposition should occur during week ending July 8. First generation expected to be light. Light hatch observed in southern counties. (Minn. Ins. Rpt.). IOWA - Moths active night of June 22. In Crawford and Harrison Counties, 36-inch corn had 10 new egg masses per 100 plants on June 23, with counts of 100 per 100 4-inch plants also reported in Plymouth County. Leaf feeding 20 percent on 35-inch plants at Ankeny, and in Boone County, eggs found in 20 of 32 fields checked and ranged 0-30 per 100 plants. (Iowa Ins. Inf., June 25). MISSOURI - Egg laying completed; very few fields show enough feeding damage to warrant controls. Counts ranged 10-65 percent of plants showing leaf feeding damage; high count 65. (Munson, Thomas, Wood). ALABAMA - First-generation larvae infesting about 50 percent of earliest-planted corn in northern area; some larvae in last instar. (Eden).

BLACK CUTWORM (Agrotis ipsilon) - MARYLAND - Causing considerable injury to field corn near Annapolis. (U. Md., Ent. Dept.). ILLINOIS - Cutworms, mostly A. ipsilon, damaged 0-30 percent of corn plants (averaged 1.5), with 0.5 larvae per damaged plant. Heaviest concentrations appear to be along west side of State, with moderate infestations in southeast and extreme north. (Ill. Ins. Rpt.). MISSOURI - Some damage continues to appear on late corn in north central and northeast areas. (Munson, Thomas, Wood). IOWA - New reports of damage from Madison and Benton Counties, with about 20 days active feeding expected. (Iowa Ins. Inf., June 25). WISCONSIN - Feeding appears to be subsiding in corn in Mazomanie area where pupation has now begun. In a Marquette County corn field, 10 percent reduction of stand reported. (Wis. Coop. Sur.). MINNESOTA - Causing light damage in south central district. (Minn. Ins. Rpt.).

ARMY CUTWORM (Chorizagrotis auxiliaris) - SOUTH DAKOTA - Damaging some replanted corn in Brown County. (Mast).

CORN EARWORM (Heliothis zea) - NEW YORK - First moth catch in light trap was June 18 in Nassau County; catch is early and could mean that a very different earworm season is approaching. Eggs found on tassels on June 23. (N.Y. Wkly. Rpt.). MARYLAND - Light to moderate in whorls and tassels of field and sweet corn on Eastern Shore. (U. Md., Ent. Dept.). DELAWARE - Larvae nearly mature in field corn in southern Sussex County. (Burbutis, Mason). OKLAHOMA - Counts continued lighter than 1959 in alfalfa, corn and grain sorghum in most parts of State. Counts ranged up to 1 per sweep, generally 0.3 per sweep, in alfalfa and up to 9 per 100 stalks in corn and grain sorghum. (Owens, Robinson, Hatfield, Vinson, VanCleave). KANSAS - Counts in alfalfa in southeast and east central areas averaged less than 1 larva per sweep. Corn fields examined in same area showed high of 12 percent of plants infested with 1 larva per plant in the whorls. In southeastern area, where some corn is tasseling, 10 percent of ears had 1-5 eggs on silks; larvae not observed on or in ears. (Peters).

ARMYWORM (Pseudaletia unipuncta) - MISSOURI - Larval damage ceased throughout State; heavy flights of adults observed at lights. (Munson, Thomas, Wood). NEBRASKA - Several infestations reported in wheat fields in eastern counties; treatments underway in localized areas. Counts in small portions of "downed" wheat in southeast averaged less than 0.5 per square foot. (Simpson). Light to noneconomic populations present in southwestern counties. (Pruess). Wheat harvest will start next week in southern counties if favorable weather prevails. (Simpson). IOWA - Damage reported on 4,000 acres of wheat in Harrison County. Damage stopped in southern area and some feeding continues as of June 23 in west central area. (Iowa Ins. Inf., June 25). ILLINOIS - Small, newly hatched larvae varied 0-10 (average 2.5) per 100 sweeps in grass in central and western sections. (Ill. Ins. Rpt.). WISCONSIN - Few larvae found in Walworth County. If an armyworm problem occurs, the time will be somewhere between 10th to 20th of July in southern and western areas. (Wis. Coop. Sur.).

FALL ARMYWORM (Laphygma frugiperda) - LOUISIANA - Second-generation larvae appearing in rice in St. Tammany area; 70 per 100 sweeps. (Spink).

STALK BORER (Papaipema nebris) - ILLINOIS - Infesting 0-20 percent of corn plants in marginal rows; average 1.7 percent infested with 1 larva per infested plant. (Ill. Ins. Rpt.).

CORN LEAF APHID (Rhopalosiphum maidis) - NEBRASKA - Light to moderate infestations found in few corn fields in Johnson County. (Simpson). NORTH DAKOTA - Populations threatening severe damage to barley in eastern area reduced by phenomenal increases of syrphid larvae. Infestations mostly now at noneconomic levels, except for few late fields where counts still high. Severe infestations observed at Casselton and Kindred in Cass County (300-400 per foot of row); at Blanchard, Traill County (400-600 per foot of row); Grafton, Walsh County (200-300 per foot of row). Crop development in these fields ranged from joint to boot. In heavily infested fields, syrphid larvae averaged 4 per 10 sweeps. Average syrphid larval count for all fields checked was 1.5 per 10 sweeps. Other predators scarce. (N.D. Ins. Sur.). MINNESOTA - Reported on barley in central, west central, southwest and south central districts. Some apparently heavy infestations observed in Redwood County. (Minn. Ins. Rpt.).

ENGLISH GRAIN APHID (Macrosiphum granarium) - NORTH DAKOTA - Trace infestations in most small grain fields throughout eastern area; appeared more commonly in barley than in wheat or oats. (N.D. Ins. Sur.). SOUTH DAKOTA - Very small numbers found in small grain in eastern area; no damage observed. (Mast). WISCONSIN - Remains dominant species of aphid in small grains. Yellow dwarf virus disease of oats appears generally scarce. Fields with greatest number of diseased plants found in southeast. (Wis. Coop. Sur.).

GREENBUG (Toxoptera graminum) - NORTH DAKOTA - Trace infestations found in wheat, oats and barley throughout eastern Red River Valley counties. Counts extremely low. (N.D. Ins. Sur.). SOUTH DAKOTA - Populations light to moderate; some feeding injury noted from toxic secretions of aphids. (Hantsbarger). MINNESOTA - Light populations present. (Minn. Ins. Rpt.).

APHIDS - NEW YORK - Yellow dwarf virus disease of oats, spread by grain aphids, is widespread throughout many fields of oats in the State. Reports to June 27 indicated that percent of infected plants range from a trace to as high as 60 percent. (N.Y. Wkly. Rpt.). MINNESOTA - Yellow dwarf virus disease observed but not widespread or considered a problem in small grains. (Minn. Ins. Rpt.).

SIX-SPOTTED LEAFHOPPER (Macrosteles fascifrons) - NORTH DAKOTA - Counts in south-east continue light but have increased over previous weeks. Count averages per 10 sweeps in small grain were as follows: Barley - 2.8; oats - 2.7; wheat - 1.7; flax - 2.7. Population counts in barley through Grand Forks and Walsh Counties averaged 3.7 per 10 sweeps. (N.D. Ins. Sur.).

SAY STINK BUG (Chlorochroa sayi) - UTAH - Damage increased in wheat and barley in Millard County. (Knowlton).

RICE STINK BUG (Oebalus pugnax) - TEXAS - Infestations averaged 2 per sweep in rice and 3-5 per sweep on levees in Waller, Fort Bend and Harris Counties. (McClung, Hawkins).

A RICE DELPHACID (Sogatia orizicola) - TEXAS - Surveys in Waller, Fort Bend and Harris County rice fields negative. (McClung, Hawkins).

CHINCH BUG (Blissus leucopterus) - KANSAS - Counts in corn and sorghum in east central and southeast areas averaged less than 5 per foot of row. A sorghum field in Lyon County had counts of about 75 bugs per plant in 2 rows adjacent to a field of ripe wheat. (Peters). TEXAS - Infestations averaged 3 per 10 sweeps on rice in Waller County. (McClung, Hawkins).

HESSIAN FLY (Phytophaga destructor) - ILLINOIS - Survey of 10 wheat fields between Bloomington and East St. Louis showed 0-100 percent (average 65) of stems infested, with average of 1.6 puparia per infested stem. Pest more numerous in western and southwestern areas than for several years, with high fall populations expected. (Ill. Ins. Rpt.).

WHEAT STEM MAGGOT (Meromyza americana) - NEBRASKA - Very light in Johnson and Gage Counties. (Simpson). NORTH DAKOTA - Several light infestations observed in southeast counties. (N.D. Ins. Sur.).

A CORN LEAF MINER (Agromyza sp.) - CONNECTICUT - Caused economic damage to 1,200-1,500 acres of sweet corn. (Johnson, Quinton).

A SAWFLY - OREGON - Larvae of an undetermined species observed damaging wheat near North Powder; approximately 15 percent of stems in 200 infested acres damaged. (Chinn).

BARLEY THRIPS (Limothrips denticornis) - NORTH DAKOTA - Adult infestations diminished somewhat in eastern area; however, infestations still quite general and numerous fields show economic levels, 2 thrips per stem. Counts averaged 2.2 per stem and infestation level of 55 percent. (N.D. Ins. Sur.).

BILLBUGS - INDIANA - Reduced stand of corn by half in Montgomery County by June 8; field treated and replanted and at present 60 percent of plants show typical plant injury. (Gould). ILLINOIS - Damaged 0-10 percent of corn plants; average 1.4. (Ill. Ins. Rpt.). OKLAHOMA - Larvae and adults caused localized light to heavy damage in few fields of grain sorghum and corn near Pauls Valley, Stillwater and Salina. (Wood, Robinson, Perry, VanCleave).

DUSKY SAP BEETLE (Carpophilus lugubris) - DELAWARE - Adults very common in corn infested with European corn borer and corn earworm in Sussex County. (Burbutis, Mason).

WIREWORMS - ILLINOIS - From 0-4 percent of corn plants damaged (average 0.4), with 0.5 larva per damaged plant. (Ill. Ins. Rpt.).

SOUTHERN CORN ROOTWORM (Diabrotica undecimpunctata howardi) - OKLAHOMA - Adults caused heavy defoliation to field of soybeans in Bryan County during week ending June 20; counts now decreased to 0.5 per linear foot, with plants 10-15 inches high. Adults light, up to 0.5 per sweep, common in alfalfa fields surveyed. (Thomas, Vinson, Hatfield, Owens, Robinson, VanCleave). DELAWARE - Adults present on alfalfa and field corn in most areas of State. (Burbutis, Mason).

A CERAMBYCID (Prionus sp.) - ALABAMA - Reported damaging Bahia grass in Houston County. (Ledbetter).

JUNE BEETLES (Cyclocephala spp.) - CALIFORNIA - General populations statewide. More prevalent than in previous years in grass and turf. Extremely heavy in Altaville, Calaveras County. (Cal. Coop. Rpt.).

A CHINCH BUG (Blissus leucopterus insularis) - ALABAMA - Moderate to heavy infestations on St. Augustine grass lawns in central and southern areas; infestations as far north as Sylacauga. (Grimes). LOUISIANA - Serious infestations in St. Augustine grass lawns in most of southern half of State. (Spink).

THRIPS - MARYLAND - Unspecified species causing noticeable foliage streaking on late corn in Queen Annes County and all stages causing noticeable foliage streaking on soybeans in Worcester County. (U. Md., Ent. Dept.). DELAWARE - Sericothrips variabilis adults common and nymphs numerous in field of soybeans in northern Kent County, with severe browning of leaves noted. Adults and nymphs present in soybeans in other areas of State. (Burbutis, Mason). OKLAHOMA - Thrips causing concern in most peanut producing areas of State. Controls applied in some cases. (Howell, Walton, VanCleave). KANSAS - An unidentified species causing soybeans to wilt in Sedwick County area. (Gates). ARIZONA - Unspecified species high in Yuma County Bermuda grass grown for seed; averaging 7-10 per boot. (Ariz. Coop. Sur.). UTAH - Thrips very numerous on alfalfa at Lehi and Springville in Utah County. (Knowlton). CALIFORNIA - Heavy populations of Frankliniella occidentalis on alfalfa in Chico, Butte County. (Cal. Coop. Rpt.).

PEA APHID (Macrosiphum pisi) - OREGON - Populations continue low on all host crops in State. Alfalfa fields swept week of June 24 in Union, Wallowa, Baker, Crook and Malheur Counties averaged 3 per sweep. (Capizzi). UTAH - Increased in second-crop alfalfa in some Salt Lake, Davis, Weber and Cache County farms. (Knowlton). WYOMING - Averaged 5 per sweep in alfalfa checked in Goshen and Laramie Counties. (Fullerton). COLORADO - Counts 250-1,000 per 100 sweeps in alfalfa in Larimer County and 1,000-1,500 in Otero County. (Colo. Ins. Sur.). OKLAHOMA - Populations continue to decline in alfalfa with only trace numbers now present. Infestations in few isolated fields, however, still continued to average as high as 25 per sweep in northwest. (Owens, Robinson, Hatfield, Vinson, VanCleave). KANSAS - Counts in alfalfa in southeast and east central areas ranged 5-25 per sweep. (Peters). NEBRASKA - Populations low; averaged 5 per sweep in southeastern counties. (Simpson). SOUTH DAKOTA - Numbers decreased; no damage found in alfalfa. (Mast). MINNESOTA - Counts increased sharply in southwest and south central districts. Counts per 10 sweeps are as follows: southwest 30-400; south central 40-2,000; southeast 25-150; central 10-75; northwest 20-50. (Minn. Ins. Rpt.). DELAWARE - Remains present on alfalfa, below 5 per sweep. (Burbutis, Mason).

SPOTTED ALFALFA APHID (Therioaphis maculata) - ARIZONA - Infestations continued to increase in alfalfa in Yuma County and in central area. (Ariz. Coop. Sur.). OREGON - None found in State so far this season. (Capizzi). OKLAHOMA - Populations continued very light across State, with only a few isolated fields in Tillman and Bryan Counties having moderate numbers, 15-30 per sweep. (Hatfield, Vinson, Owens, Robinson, VanCleave).

ALFALFA PLANT BUG (Adelphocoris lineolatus) - SOUTH DAKOTA - Abundant in all alfalfa checked in northeast, north central and central areas, with counts as high as 19 per sweep in Codington County. (Mast). MINNESOTA - Counts per 10 sweeps are as follows: southwest 10-21; south central 2-15; central 2-30; west central 2-100; northwest 10-20. (Minn. Ins. Rpt.). WISCONSIN - Adults and nymphs variable in alfalfa in Waupaca, Waushara, Walworth, Oconto, Rock, Racine, Dane, Shawano, Marinette, Outagamie, Marquette and Portage Counties. In general, A. lineolatus appears more numerous than A. rapidus. (Wis. Coop. Sur.).

MEADOW SPITTLEBUG (Philaenus leucophthalmus) - MARYLAND - Adults common in alfalfa in Howard and Frederick Counties. (U. Md., Ent. Dept.). WISCONSIN - Numerous in Shawano County, counts as high as 7 nymphs per 10 stems in alfalfa. Adults common and migration to many crops other than alfalfa underway in southern and western counties. (Wis. Coop. Sur.).

CLOVER LEAFHOPPER (Aceratagallia sanguinolenta) - SOUTH DAKOTA - Large numbers attracted to yard lights in town of Clear Lake, Deuel County; small populations in fields of legumes in northeast one-fourth of State. (Mast).

POTATO LEAFHOPPER (Empoasca fabae) - SOUTH DAKOTA - First specimen taken in alfalfa in Codington County on June 27. (Mast). WISCONSIN - Migrants increasing in alfalfa. (Wis. Coop. Sur.). DELAWARE - Adults and nymphs present in soybeans and alfalfa in Sussex County. (Burbutis, Mason).

TARNISHED PLANT BUG (Lygus lineolaris) - ALABAMA - Moderate infestation observed on alfalfa in Etowah County. (Grimes). DELAWARE - Adults averaged 2-3 per sweep in alfalfa and 1 per sweep in soybeans in New Castle County; nymphs increasing. (Burbutis, Mason). MINNESOTA - Counts per 10 sweeps are as follows: southwest 2-7; south central 3-7; southeast 4-20; central 5-10; west central 1-40; northwest 3-5. (Minn. Ins. Rpt.). NEBRASKA - Numbers increasing in central and southern areas of State. Most alfalfa fields averaged 2 per sweep. (Simpson).

LYGUS BUGS (Lygus spp.) - ARIZONA - Infestations high in alfalfa statewide. Counts average 15-20 per 10 sweeps in hay fields and 30-40 per 10 sweeps in Yuma County seed fields. (Ariz. Coop. Sur.). COLORADO - Counts of L. desertus, dominant species, ranged 40-50 per 100 sweeps in alfalfa in Otero County. (Colo. Ins. Sur.). WYOMING - Adults averaged 2 per sweep and nymphs 3 per sweep in alfalfa checked in Goshen and Laramie Counties. (Fullerton).

GARDEN FLEAHOPPER (Halticus bracteatus) - NEW JERSEY - Very numerous in some northern alfalfa fields. (Ins.-Dis. Newsl., June 28). DELAWARE - Adults present in soybeans, with no noticeable increase. (Burbutis, Mason).

WEBWORMS - SOUTH DAKOTA - Larvae number an estimated 25 per square foot in some areas in Bennett County; feeding mainly on weeds and somewhat on lower leaves of winter wheat. (Hantsbarger). OKLAHOMA - Loxostege sp. common but generally light in most alfalfa. Controls applied to one field of alfalfa in Canadian County and infestations caused damage in Altus area and in some east central areas. (Hatfield, Owens, Bollenbach, Vinson, Robinson, Echols, Howell, VanCleave). TEXAS - L. similalis heavy in alfalfa in Wharton County. (Texas Coop. Rpt.). NEBRASKA - Heavy populations of Loxostege spp., 10-100 per square foot, found in wheat, sorghum, sugar beets and other crops. Infestations range from Deuel to Box Butte Counties in panhandle area. (Andersen).

ALFALFA LOOPER (Autographa californica) - IDAHO - Late-instar larvae very common on an 80-acre clover field near Nez Perce. Infestation general and damage minor. (Dailey). Common to abundant on alfalfa in Twin Falls area. Following alfalfa cutting for hay, larvae migrating into beet and bean fields in area. (Gibson, Daigh).

ALFALFA CATERPILLAR (Colias philodice eurytheme) - COLORADO - Larvae 10-20 per 100 sweeps in alfalfa in Larimer County. (Colo. Ins. Sur.). WYOMING - Larvae averaged 4 per 25 sweeps in alfalfa checked in Goshen and Laramie Counties. (Fullerton). DELAWARE - Larvae present on soybeans in New Castle County. (Burbutis, Mason).

VARIEGATED CUTWORM (Peridroma saucia) - NEBRASKA - Larvae preventing recovery of alfalfa following first cutting in scattered fields in southwestern counties. (Pruess).

WESTERN YELLOW-STRIPED ARMYWORM (Prodenia praefica) - CALIFORNIA - Heavy infestations occurring on alfalfa in Sheldon area, Sacramento County. (W. G. Golden).

ALFALFA WEEVIL (Hypera postica) - NEW JERSEY - Damage to alfalfa decreasing; injury heavier than in most previous years, particularly in central and northern counties. (Ins.-Dis. Newsl., June 28). NEW YORK - Second-brood weevils emerged in Ulster County. (N.Y. Wkly. Rpt., June 27). MARYLAND - First-generation adults averaged 4 per 10 sweeps on second-growth alfalfa in Frederick County. (U. Md., Ent. Dept.). NORTH CAROLINA - Taken in Transylvania County for first time. (Farrier). COLORADO - Larvae 0-20 per 100 sweeps in alfalfa in Larimer County. (Colo. Ins. Sur.). WYOMING - Larvae averaged 4 per sweep in alfalfa checked in Goshen and Laramie Counties; 90 percent of fields cut. (Fullerton). UTAH - Larvae held some Cache and Box Elder County second-growth alfalfa back for 3 weeks, where infestations severe. (Knowlton).

CLOVER SEED WEEVIL (Miccotrogus picrostris) - CALIFORNIA - Heavy populations on red clover in Smith River Valley, Del Norte County, and on white clover pastures northeast of Burney, Shasta County. (Cal. Coop. Rpt.). IDAHO - Continues very abundant on many clover fields in Latah, Nez Perce, Lewis, Clearwater and Idaho Counties. In some cases controls do not appear satisfactory. (Gittins).

CLOVER ROOT CURCULIO (Sitona hispidula) - CALIFORNIA - Light on clover pastures in Smith River, Del Norte County. (Cal. Coop. Rpt.).

SWEETCLOVER WEEVIL (Sitona cylindricollis) - NORTH DAKOTA - A seedling sweet-clover field near Prosper, Cass County, showed 100 percent of plants infested with 100 Therioaphis riehi per plant; damage severe. Weevil defoliation of plants in same field estimated at 75 percent. (N.D. Ins. Sur.).

VETCH BRUCHID (Bruchus brachialis) - TEXAS - Heavy emergence of adults in fields and from harvested seed in Madison County; harvest ceased because of heavy damage. (Randolph).

A SCARAB (Strigoderma arboricola) - INDIANA - Adults especially abundant in Columbus area, clustering on heads of red clover. (Chandler). ILLINOIS - Averaged 1 per 6 linear feet of row and feeding on soybean leaves in field near Havana. (Ill. Ins. Rpt.).

ASH-GRAY BLISTER BEETLE (Epicauta fabricii) - SOUTH DAKOTA - Found in all alfalfa checked in northeast area; counts ranged 1-17 per 10 sweeps. (Mast).

A SPIDER MITE (Tetranychus cinnabarinus) - ARIZONA - Infestations continue to increase on Yuma County alfalfa seed fields. (Ariz. Coop. Sur.).

JAPANESE BEETLE (Popillia japonica) - MARYLAND - Causing light to moderate foliage injury to soybeans in Worcester County. (U. Md., Ent. Dept.).
DELAWARE - Adults present and causing light feeding injury to alfalfa, soybeans and field corn statewide. (Burbutis, Mason).

PALE-STRIPED FLEA BEETLE (Systema blanda) - DELAWARE - Adults common on soybeans, New Castle County; causing light feeding injury. (Burbutis, Mason).

BEAN LEAF BEETLE (Cerotoma trifurcata) - MARYLAND - Light to moderate foliage damage noted on soybeans in Worcester County. (U. Md., Ent. Dept.). DELAWARE - Adults common in field of soybeans in southeastern Sussex County. (Burbutis, Mason). ILLINOIS - Adults varied 0-3 per 6 linear feet of row in soybeans in central area. (Ill. Ins. Rpt.). OKLAHOMA - Heavy damage to foliage noted in field of soybeans in Muskogee County. (Robinson).

A BEETLE (Colaspis sp.) - LOUISIANA - Averaged 67 per 100 sweeps on soybeans in Caldwell Parish. (Spink).

A CUTWORM - GEORGIA - Moderate to heavy defoliation of peanuts in Seminole and Irwin Counties. (Brannen).

YELLOW-STRIPED ARMYWORM (Prodenia ornithogalli) - DELAWARE - Larvae found in 2 soybean fields in Sussex County. (Burbutis, Mason).

RED-NECKED PEANUTWORM (Stegasta basqueella) - GEORGIA - Light infestation on peanuts in Houston County. (Allmond). OKLAHOMA - Causing concern in isolated fields of peanuts in Caddo County, with controls being applied in some cases. (VanCleave).

FRUIT INSECTS

CODLING MOTH (Carpocapsa pomonella) - ILLINOIS - First moths emerged from first-brood infested apples in Carbondale area, June 24. Based on weather conditions, it is forecast that first hatch of the second brood will occur July 1-4 in the area. (Chandler, June 29). INDIANA - First-brood moths completed emergence in cages June 20 in Vincennes area. Second-brood moths began emerging in insectary June 27, which is probably a bit ahead of field emergence, but indicates that time is near for new entries. (Cleveland, June 27). MISSOURI - No new entries reported from any part of State, but larvae in unsprayed apples in central area vary one-half to full grown. Second brood should appear just after July 4. (Wkly. Rpt. Fr. Gr.). NEW YORK - Larval entries into fruit found June 18 in Clinton County. During following week, entries were found in several orchards in county where some activity of this species was observed during 1959. Activity continues in Niagara County at moderate level, with moths flying when temperatures are favorable. Conditions in Orleans County were favorable on nights of June 22 and 23 for moth activity. Entrances were observed June 23 in neglected orchards in Wayne County. Emergence has dropped considerably in seeded cages in Monroe County and numbers are very light in bait traps. (N. Y. Wkly. Rpt.). NEW JERSEY - No observations made of fresh damage to apples in central or southern areas for past week. (Ins.-Dis. Newsl., June 28).

RED-BANDED LEAF ROLLER (Argyrotaenia velutinana) - ILLINOIS - Remains extremely light on apples in Carbondale area to June 29. (Chandler). NEW JERSEY - Early second-brood larvae should be active on apples shortly. (Ins.-Dis. Newsl., June 28). NEW YORK - Occasional feeding of first brood found June 21 and 23 in Clinton County. (N. Y. Wkly. Rpt.).

ORIENTAL FRUIT MOTH (Grapholitha molesta) - NEW YORK - Infestation above normal in Monroe County this year. First-brood moth flight appears about over in Niagara County. (N. Y. Wkly. Rpt., June 27). ILLINOIS - New brood which showed some indication of attacking peach terminals last week in Carbondale area, increased somewhat. Infestation is light to date, however. (Chandler, June 29). MISSOURI - No fresh sign in southeast area, but larvae still in terminals in central area, varying from one-third to full grown. (Wkly Rpt. Fr. Gr.). KANSAS - Second-generation larvae boring in terminals of peach trees June 22-23 in Franklin County; averaged 5 larvae per 100 trees. (Thompson).

APPLE APHID (Aphis pomi) - ILLINOIS - Numbers being reduced in apple orchards in Carbondale area, but increasing in orchards where no controls have been applied. (Chandler, June 29). NEW YORK - A moderate but steady buildup continues in most Columbia County orchards; few colonies observed in Niagara County. (N. Y. Wkly. Rpt., June 27). MASSACHUSETTS - Numerous in many apple orchards. (Crop Pest Cont. Mess.).

APPLE MAGGOT (Rhagoletis pomonella) - MASSACHUSETTS - Adults emerging. (Crop Pest Cont. Mess.). NEW YORK - Adult emergence increasing gradually and at normal rate in eastern area; began emerging in cages in small numbers in Columbia County, June 21. Have not begun to emerge in Monroe County. (N. Y. Wkly. Rpt., June 27). OHIO - First adult collected on cherry fruit fly trap June 21 in Lorain County. (Still).

SCALE INSECTS - CALIFORNIA - Lepidosaphes ulmi and Aspidiotus perniciosus medium on apples in Kneeland, Humboldt County. A. juglans-regiae extremely heavy on pear in Huntington Beach, Orange County, and heavy on black walnut in San Bernardino, San Bernardino County. (Cal. Coop. Rpt.).

ORCHARD MITES - MASSACHUSETTS - Panonychus ulmi numerous in some apple blocks. (Crop Pest Cont. Mess.). NEW YORK - P. ulmi not numerous on apples generally, in Columbia County; increasing in Orleans County where not controlled. (N. Y. Wkly. Rpt., June 27). INDIANA - Growers in Vincennes area report that problems with P. ulmi are increasing. (Cleveland, June 27). ILLINOIS - Unspecified species

spotty on apples in Carbondale area. (Chandler, June 29). COLORADO - Tetranychus telarius building up on bindweed, Convolvulus and cover crops in orchards in Delta, Mesa and Garfield Counties. (Colo. Ins. Sur.).

PEACH TREE BORER (Sanninoidea exitiosa) - COLORADO - First adult emergence occurred June 18 in Delta County and June 20 in Mesa County. (Colo. Ins. Sur.).

A SATURNIID (Pseudohazis eglanterina) - CALIFORNIA - Heavy on prune in Santa Rosa, Sonoma County. (Cal. Coop. Rpt.).

PLUM CURCULIO (Conotrachelus nenuphar) - ILLINOIS - Second brood appears to be slightly earlier than during 1959 in the Carbondale area. Jarring does not yet indicate that new-brood adults have appeared in peach orchards, despite some rains. (Chandler, June 29). MISSOURI - Egg-laying punctures found on plums in southeast on June 28; second brood underway in area. (Wkly. Rpt. Fr. Gr.). NEW YORK - First matured larvae found in Monroe County peaches June 23. (N. Y. Wkly. Rpt.). NORTH CAROLINA - Heavy on plums in a home garden. (Wray). GEORGIA - Recent showers facilitated emergence of new first-generation adults from soil in Ft. Valley area; no second-generation eggs deposited to June 29. (Snapp).

DRIED-FRUIT BEETLE (Carpophilus hemipterus) - CALIFORNIA - Heavy adult population in apricot fruit in Fair Oaks, Sacramento County. (Cal. Coop. Rpt.).

AN ERIOPHYID MITE (Eriophyes insidiosus) - CALIFORNIA - A spot check survey in 21 counties revealed this vector of peach mosaic present on peach trees in Fillmore and Ojai, Ventura County, without the disease. This area is a considerable distance from the Los Angeles County infestation. Results of detection and survey show that the vector is not present north of the Tehachapi Mountains. (Cal. Coop. Rpt.).

CHERRY FRUIT FLY (Rhagoletis cingulata) - NEW YORK - First adult found in cages at Geneva June 20, with emergence light and steady since. Emergence has been steady and heavy in Monroe County. (N. Y. Wkly. Rpt., June 27).

FALL WEBWORM (Hyphantria cunea) - LOUISIANA - Heaviest infestation in several years being reported from all areas of State on pecans. Some small trees completely covered with webbing. (Spink). GEORGIA - Larval nests appearing on pecan trees in Ft. Valley area; infestation light to June 27. (Snapp). DELAWARE - Abundant on pear in Sussex County June 22 and causing moderate feeding injury. (Burbutis, Mason).

PECAN NUT CASEBEARER (Acrobasis caryae) - OKLAHOMA - Counts averaged 12 and 28 percent of nut clusters infested in 2 groves of native pecans checked in Pauls Valley area, Garvin County. (McLemore, VanCleave).

WALNUT CATERPILLAR (Datana integerrima) - ALABAMA - Moderate on pecans in south-east section of State. (Eden).

PECAN PHYLLOXERA (Phylloxera devastatrix) - OKLAHOMA - Emergence has been completed in southern half of State. (VanCleave).

YUMA SPIDER MITE (Eotetranychus yumensis) - ARIZONA - Light on Yuma County citrus. (Ariz. Coop. Sur.).

GRAPE BERRY MOTH (Paralobesia viteana) - MISSOURI - Heavy infestations found in 2 vineyards in Rosati area. (Wkly. Rpt. Fr. Gr.).

GRAPE SAWFLY (Erythraspides vitis) - MARYLAND - Heavy, local infestation on grapes at Brookeville, Montgomery County; required controls. (Hambleton).

TRUCK CROP INSECTS

POTATO FLEA BEETLE (Epitrix cucumeris) - DELAWARE - Adults present on potatoes throughout State, with no increase generally. (Burbutis, Mason). MAINE - Populations of overwintered adults very small and leaf-feeding damage generally light in Presque Isle area. (Shands). MARYLAND - Adults, apparently a new generation, abundant and destructive to untreated potatoes in Queen Annes County. (U. Md., Ent. Dept.). SOUTH DAKOTA - Quite abundant on potatoes. (Hantsbarger). NORTH DAKOTA - Averaged 38 adults per 10 sweeps in potato fields surveyed in Grand Forks and Walsh Counties; leaf feeding injury evident. (N. D. Ins. Sur.).

FLEA BEETLES - DELAWARE - Phyllotreta cruciferae adults more numerous, with definite increase on horseradish in Kent County; counts averaging 6-8 per plant. (Burbutis, Mason). WISCONSIN - Unspecified species abundant in some untreated potato fields but scarce in treated fields. Populations low in southeastern area. (Wis. Coop. Sur.). MINNESOTA - Damage apparent on potatoes in Hollandale and Red River Valley areas. (Minn. Ins. Rpt.). COLORADO - Epitrix sp. ranged 20-30 per 100 sweeps on potatoes, beets, spinach and turnips in Otero County; P. striolata numerous in Garfield County sugar beets; and Systema blanda numerous in some bean fields in Weld County. (Colo. Ins. Sur.). WYOMING - Phyllotreta sp. adults averaged 3 per 100 plants in sugar beet fields and 8 bean fields checked in Goshen and Laramie Counties. (Fullerton). IDAHO - Adults of E. subcrinita abundant in Butte and Custer Counties. (Bishop). CALIFORNIA - P. decipiens adults heavy on mustard for seed in Santa Maria, Santa Barbara County. (Cal. Coop. Rpt.).

COLORADO POTATO BEETLE (Leptinotarsa decemlineata) - NORTH DAKOTA - First larvae of season found near Lankin, Walsh County. No adults found in any field surveyed through the upper Red River Valley. (N. D. Ins. Sur.). MINNESOTA - Light on potatoes in Hollandale area. (Minn. Ins. Rpt.). IDAHO - Adults usually abundant throughout the upper Snake River Valley. Eggs being deposited in many fields. (Bishop). Injured potatoes in a field near Parma; extensive leaf damage occurred. (Scott).

POTATO LEAFHOPPER (Empoasca fabae) - DELAWARE - Adults present on potatoes, lima beans and peppers in New Castle County; adults and nymphs fairly common on potatoes and lima beans in Kent County; and a noticeable buildup of adults and nymphs on potatoes and lima beans in Sussex County. (Burbutis, Mason). MARYLAND - Moderate to heavy on beans and potatoes in Queen Annes and Worcester Counties. (U. Md., Ent. Dept.). INDIANA - Increasing on potatoes. (Gould). IOWA - Damaged beans by reducing quality and yield. Laying eggs in central area and nymphs just beginning to emerge. (Iowa Ins. Inf., June 25). WISCONSIN - Populations light on potatoes in southeastern area. (Wis. Coop. Sur.). NORTH DAKOTA - Trace infestation in a field of potatoes near Kempton, Grand Forks County. (N. D. Ins. Sur.).

Potato Aphids in Maine - Populations still very light but increasing rapidly at Presque Isle. In untreated experimental plots at the Aroostook Farm an average of 1.4 percent of potato plants infested. In commercial plantings, 4-31 percent of plants examined infested. POTATO APHID (Macrosiphum solanifolii) predominates, followed by BUCKTHORN APHID (Aphis nasturtii), FOXGLOVE APHID (Myzus solani) and GREEN PEACH APHID (Myzus persicae). An infestation of green peach aphid found for first time this season on Aroostook Farm. (Shands).

GREEN PEACH APHID (Myzus persicae) - DELAWARE - Present on peppers and cucumbers in New Castle County and light on lower leaves of potatoes in Kent and Sussex Counties. (Burbutis, Mason). MARYLAND - Light on the more advanced peppers in Worcester County. (U. Md., Ent. Dept.). NEW YORK - Small numbers found in most potato fields in Suffolk County. (N. Y. Wkly. Rpt., June 27). IDAHO - Developing rapidly in home gardens in Ashton and Mackay. (Bishop).

EUROPEAN CORN BORER (Pyrausta nubilalis) - DELAWARE - Injury to potatoes noticeable now with early death of many vines throughout State. (Burbutis, Mason). MARYLAND - Emergence of second-generation adults from potatoes underway in Worcester County. Injury to potatoes on Eastern Shore has been heavy. (U. Md., Ent. Dept.).

STALK BORER (Papaipema nebris) - KANSAS - Attacking tomatoes, potatoes and other vegetables in Riley County. (Knutson). OKLAHOMA - Attacking vegetables in Payne County. (Howell).

HORNWORMS (Protoparce spp.) - DELAWARE - Larvae fairly common locally. (Burbutis, Mason). MARYLAND - Eggs being deposited on peppers in Worcester County. (U. Md., Ent. Dept.).

SIX-SPOTTED LEAFHOPPER (Macrostelus fascifrons) - COLORADO - Appearing in light trap material from Mesa, Costilla, Otero and Boulder Counties. A few seen in Larimer County. (Colo. Ins. Sur.).

BEET WEBWORM (Loxostege sticticalis) - WYOMING - Larvae averaged 1 per 100 plants on sugar beets in Laramie County, and 3 per 100 plants in Goshen County. (Fullerton). COLORADO - Averaged 1-2 larvae per 10 sugar-beet plants in Larimer County; defoliation occurring in a few fields in Mesa County where no controls used. (Colo. Ins. Sur.). NORTH DAKOTA - Early instar larvae noneconomic in beet-field near Prosper, Cass County; few adults and unhatched egg masses observed. (N. D. Ins. Sur.).

A NEMATODE (Heterodera schachtii) - WYOMING - Seriously damaged field of sugar beets near Veteran, Goshen County. (Fullerton).

MEXICAN BEAN BEETLE (Epilachna varivestis) - DELAWARE - Adults and larvae common on beans in Sussex County, with heavy feeding injury in some fields. Present also in Kent and New Castle Counties on beans. (Burbutis, Mason). MARYLAND - All stages very injurious to beans in home gardens over State. (U. Md., Ent. Dept.). MICHIGAN - Feeding on colored beans at Stanton on June 20; eggs not found. (Hutson). COLORADO - Adults 1-7 per 10 bean plants in Weld and Larimer Counties. (Colo. Ins. Sur.). WYOMING - Light damage in some bean fields. Adults averaged 2 per 100 plants in beans in Goshen and Laramie Counties. (Fullerton).

COTTON SQUARE BORER (Strymon melinus) - DELAWARE - Larvae present on lima beans in central Kent County. (Burbutis, Mason).

BEAN LEAF BEETLE (Cerotoma trifurcata) - DELAWARE - Adults present on beans in New Castle and Sussex Counties. (Burbutis, Mason).

JAPANESE BEETLE (Popillia japonica) - DELAWARE - Adults present on lima beans in New Castle County and on tomatoes in Sussex County. (Burbutis, Mason).

LEAFHOPPERS - NEW YORK - Some bean fields in Oneida County suffered extensive damage. (N. Y. Wkly. Rpt., June 27).

TOMATO FRUITWORM (Heliothis zea) - DELAWARE - Larvae causing light feeding injury to lima beans in Kent County. (Burbutis, Mason). CALIFORNIA - Light infestations damaging strawberry fruit in Blythe, Riverside County. (Cal. Coop. Rpt.).

PEA APHID (Macrosiphum pisi) - WISCONSIN - Counts of 40-50 per sweep in 15-inch peas, June 27. Due to forceful rains on June 28, counts dropped to 15-20 per sweep. Development of populations slow in fields unaffected by rain, including treated fields. (Wis. Coop. Sur.). IDAHO - General buildup in numerous areas throughout west central area. In several hundred acres of peas in Culdesac area, populations run as high as 100 per sweep. (Dailey, Kambitsch).

SPOTTED CUCUMBER BEETLE (Diabrotica undecimpunctata howardi) - DELAWARE - Present on lima beans in New Castle County and on cucumbers in Sussex County. (Burbutis, Mason). OKLAHOMA - Caused extensive damage to gardens in eastern Bryan County. (Thomas, June 20).

STRIPED CUCUMBER BEETLE (Acalymma vittata) - INDIANA - Moved into experimental plots June 24; exceedingly destructive at present. (Gould). IOWA - Laying eggs in central area. (Iowa Ins. Inf., June 25). COLORADO - Counts 0-30 per 100 sweeps on summer squash in Larimer County. (Colo. Ins. Sur.) SOUTH DAKOTA - Attacking cucumbers, squash and melons. (Hantsbarger).

A SPIDER MITE (Tetranychus cinnabarinus) - ARIZONA - Continues to increase in Yuma County watermelon and cantaloup fields. (Ariz. Coop. Sur.).

A PIESMATID (Piesma cinera) - COLORADO - Numerous on summer squash in Larimer County. (Colo. Ins. Sur.).

CABBAGE LOOPER (Trichoplusia ni) - DELAWARE - First larvae of season noted in one small field of cabbage in southeastern Sussex County. (Burbutis, Mason). TEXAS - Heavy on late cabbage in Uvalde County. (Prucia). OKLAHOMA - Present on cabbage in home gardens and has caused some concern in Payne County. (Howell). IOWA - Seriously damaging cabbage in central area. (Iowa Ins. Inf., June 25).

IMPORTED CABBAGEWORM (Pieris rapae) - IOWA - Seriously damaging cabbage in central area. (Iowa Ins. Inf., June 25). DELAWARE - Larvae abundant, 6-8 per cabbage head, in one field in Kent County; causing severe injury. Present on horseradish in Kent County and cabbage in Sussex County. (Burbutis, Mason).

DIAMONDBACK MOTH (Plutella maculipennis) - IOWA - Seriously damaging cabbage in central area. (Iowa Ins. Inf., June 25). DELAWARE - Larvae common and causing light injury to cabbage locally in Sussex County. (Burbutis, Mason).

CABBAGE MAGGOT (Hylemya brassicae) - MICHIGAN - Infestations not found. (Hutson).

GRASSHOPPERS - DELAWARE - Causing noticeable injury to horseradish in Kent County. (Burbutis, Mason).

A COREID (Liorhyssus sp.) - CALIFORNIA - Heavy adult populations on mustard for seed in Santa Maria, Santa Barbara County. (Cal. Coop. Rpt.).

ONION THRIPS (Thrips tabaci) - COLORADO - Counts 10-15 per onion plant in Otero County; 4-8 per plant in Mesa County; 0-3 per plant in three-leaf stage in Larimer County. (Colo. Ins. Sur.). IDAHO - Thrips, probably mostly this species, much more abundant in carrot umbels than in previous 2-3 years. (Scott).

LYGUS BUGS (Lygus spp.) - IDAHO - Mostly L. elisus and L. hesperus increasing on untreated carrot seed fields near Parma, 4 adults and no nymphs counted on 24 umbels June 16. On June 28, one adult and 35 nymphs counted on 24 umbels. (Scott).

CELERYWORM (Papilio polyxenes asterius) - INDIANA - Larvae unusually common on umbelliferous weeds and related garden crops. (Chandler).

SPINACH LEAF MINER (Pegomya hyoscyami) - IDAHO - Abundant on home garden spinach and swiss chard in southeastern area. (Bishop).

VARIEGATED CUTWORM (Peridroma saucia) - CALIFORNIA - Larvae heavy and damaging lettuce in San Jose, Santa Clara County. (Cal. Coop. Rpt.).

WESTERN YELLOW-STRIPED ARMYWORM (Prodenia praefica) - CALIFORNIA - A moderate, general infestation in 8 large hop yards along American and Consummes Rivers in Sacramento County, with some vines having 20 plus larvae skeletonizing all leaf stages and cutting stems. Present damage up to 12-foot level. Control about 90 percent effective. (W. G. Golden).

A THRIPS (Chirothrips aculeatus) - IDAHO - Collected on flaxweed at Glenns Ferry, May 15, 1959. Det. by K. O'Neill June 1, 1960. New State record. (Valcarce).

A WEEVIL (Barbypeithes pellucidus) - INDIANA - Collected at Lafayette in early June; this is first record for State. Det. by R. E. Warner. Recorded as attacking strawberries in Europe. (Chandler).

TOBACCO INSECTS

BUDWORMS (Heliothis spp.) - MARYLAND - Increased over previous week on tobacco in St. Marys and Calvert Counties. (U. Md., Ent. Dept.).

GREEN PEACH APHID (Myzus persicae) - MARYLAND - Increasing on late tobacco in Calvert and St. Marys Counties. (U. Md., Ent. Dept.).

TOBACCO FLEA BEETLE (Epitrix hirtipennis) - MARYLAND - Emergence of first-generation adults now occurring on late tobacco in Calvert County. (U. Md., Ent. Dept.).

COTTON INSECTS

BOLL WEEVIL (Anthonomus grandis) - NORTH CAROLINA - In early cotton from Hoke, Robeson and Scotland Counties to Northampton and Sampson, many blooms evident. Squares plentiful and where early treatments followed, weevil populations generally very low. Majority of overwintered weevils emerged from hibernation. First-generation adults expected to appear about July 4 or 5 in lower southeastern counties and about July 10-12 in central northern counties. (Cott. News Lett.). SOUTH CAROLINA - Percent infestation in cotton was 7 in treated fields and 18 in untreated fields. Overwintering weevils continue to emerge and puncture squares and new weevils also being found in many fields. About 33 percent of cotton has been treated to June 28, compared with 60 percent at same time in 1959. (Cott. Lett., June 28). In Florence area, fewer overwintering weevils emerging from hibernation. An occasional first-generation weevil seen. Due to impossibility of treatments, infestations in some fields have built up to damaging levels. (Taft, Hopkins, Jernigan). ALABAMA - Infestations decreased some, with counts ranging 5-60 percent in central and southern areas. Average infestations 15-20 percent. (Grimes). TENNESSEE - Weevils very active in southern counties in western area. Rains favored weevil reproduction. Most overwintered weevils should have emerged. (Locke). MISSISSIPPI - First-generation hatch occurring during latter part of week, but extremely light. General infestation low in delta counties. Some "hot spots" have extremely high infestations. Average infestation for area less than 3 percent. (Merkel et al.).

ARKANSAS - Overwintering emergence heavy and first-generation emergence taking place in older cotton. A general emergence of first generation expected July 7-10. (Ark. Ins. Rpt.). LOUISIANA - Percent square infestation in Tallulah area was 7, ranging 0-42 percent. The percentage of survival in hibernation cages to July 1 was 2.44, compared with 2.96 at same time in 1959. Emergence completed by this date in 1959. (Smith et al.). Percent infestation was 48 in old cotton in 7 fields examined in Pointe Coupee Parish; ranged 0-10 in cotton in Evangeline Parish; averaged 2, 20 and 50 in 3 fields in Tensas Parish; averaged 2 and 3 in 2 fields in Rapides Parish; and in Acadia Parish, one older field averaged 25 percent and 2-3 percent in other fields examined. (Spink). OKLAHOMA - In fields checked throughout State where squares were forming, counts averaged 6-12 percent of squares infested. In some fields in south central area, counts ranged up to 21-24 percent infested squares. Counts in younger cotton much lighter. (Flora, Hatfield, Vinson, Stiles, Robinson, VanCleave). TEXAS - Infestations generally increased, with some areas reporting heavy infestations. (Gaines). Infestation in McLennan and Fall Counties averaged 32.6 percent in 6 untreated fields and 19.6 percent in 33 early treated fields for an overall average of 21.1 percent. (Parencia, Cowan, Davis).

BOLLWORMS (*Heliothis* spp., et al.) - SOUTH CAROLINA - Activity reported increasing Throughout State. Newly laid eggs readily found, expected to hatch in 3-5 days. (Cott. Lett., June 28). In Florence area, light to medium infestations present. Infestations becoming serious in fields not properly treated. (Taft, Hopkins, Jernigan). ALABAMA - Infestations lower in most areas of State than reported previous week. Counts range 0-13 per 100 terminals, averaging 2-3 per 100 terminals in central and southern areas. Activity in Talladega, St. Clair, Shelby and Etowah Counties negligible. (Grimes). TENNESSEE - Appearing in cotton in western area; infestations light. (Locke). MISSISSIPPI - Egg deposition dropped markedly during week. Small larvae common in many untreated fields in delta counties. Treatments effective. (Merkl et al.). ARKANSAS - Egg counts down; most larvae found in fields are large and near pupation. Predators keeping infestations well under control. (Ark. Ins. Rpt.). LOUISIANA - Average square infestation in Tallulah area was 10 percent, ranging 2-28 percent. Square damage general and above normal. Controls being used. Eggs averaged 9 and larvae 9.25 per 100 terminals. (Smith et al.). Larvae averaged 1 per terminal in Pointe Coupee Parish; ranged 0-10 percent infestation in Evangeline Parish; light to medium infestations in St. Landry Parish; and eggs averaged 2-3 per 100 terminals in Tensas, Rapides, Avoyelles and Acadia Parishes. Species reported as probably *H. virescens* in most cases. (Spink). OKLAHOMA - Light infestations becoming common in counties along Red River in southwest and south central areas. None or very light, isolated infestations reported in other areas of State. (Flora, Hatfield, Vinson, Stiles, Robinson, VanCleave). TEXAS - Activity increased in many areas, with no reports of damaging infestations, with the exception of the lower Rio Grande Valley where high counts were found. (Gaines).

FLEAHOPPERS - ALABAMA - Light infestations in northern area. (Grimes). LOUISIANA - Each plant examined in 5 fields of cotton in Evangeline Parish supported 2-3 *Psallus seriatus*. As many as 6 found in white blooms. Necessary controls recommended. (Spink). OKLAHOMA - Damaging infestations of *P. seriatus* continued to be reported in cotton in southwest. Counts ran up to 30-40 per 100 terminals in Harmon County and as high as 4 per linear foot in Tillman County. None to very light elsewhere in State. (Flora, Hatfield, Vinson, Stiles, Robinson, VanCleave). TEXAS - Populations of *P. seriatus* continued to be of some concern in north central and northeast areas, with migrations just starting in west central and north and south plains areas. (Gaines). ARIZONA - Counts of *Spanogonicus albofasciatus* and *P. seriatus* average 8-15 per 100 sweeps in southeast area. (Ariz. Coop. Sur.).

TARNISHED PLANT BUG (*Lygus lineolaris*) - MISSISSIPPI - Probably major pest of cotton in delta counties at present. Where satisfactory treatment program is being followed, populations drastically reduced and little or no economic damage noted. In fields not treated during past week to 10 days, populations and damage range up to heavy and severe. Counts range 0-39 per 100 sweeps. Excessive blasting of small squares noted in several fields, particularly in Lake Washington area in southern Washington County. (Merkl et al.). LOUISIANA - Averaged 15 per 100 sweeps in cotton in Tensas Parish and 10 per 100 sweeps in field of cotton in Avoyelles Parish, and 2 per 100 sweeps in another field. (Spink).

LYGUS BUGS (*Lygus* spp.) - ARIZONA - Counts per 100 sweeps during past week averaged as follows in untreated fields: Central area, 20-30; southwest area, 10-20; southeast area, 8-12. Counts in central and southeast counties have not changed greatly from previous week. In Yuma County, infestations increased, particularly in Yuma Valley and Roll areas. (Ariz. Coop. Sur.).

SAY STINK BUG (*Chlorochroa sayi*) - ARIZONA - Infestations averaged 4 per 100 sweeps in some Cochise County cotton fields. (Ariz. Coop. Sur.).

GARDEN WEBWORM (*Loxostege similalis*) - TEXAS - Heavy infestations in cotton in Wharton County. (Texas Coop. Rpt.).

BEET ARMYWORM (Spodoptera exigua) - ARIZONA - Light infestations appearing in some Pinal County cotton fields, particularly in Coolidge and Picacho areas. (Ariz. Coop. Sur.).

A LEAF ROLLER (Platynota stultana) - ARIZONA - Light to medium infestations present in some Maricopa County cotton fields. (Ariz. Coop. Sur.).

A PYRAUSTID (Noctuelia rufofascialis) - CALIFORNIA - Light larval populations in cotton bolls in Niland, Imperial County. (Cal. Coop. Rpt.).

COTTON LEAF PERFORATOR (Bucculatrix thurberiella) - ARIZONA - Light infestations present in some Yuma and Pinal County cotton fields. (Ariz. Coop. Sur.).

SPIDER MITES - ALABAMA - Undetermined species causing light to moderate damage to cotton throughout Tennessee Valley and light infestations observed in St. Clair and Talladega Counties. (Grimes).

THRIPS - OKLAHOMA - Populations of Frankliniella sp. decreased in most fields checked and plants outgrowing effects of earlier feeding. Heavy damage still noted in some fields in Roger Mills County. (Okla. Coop. Sur.). TEXAS - Infestations generally decreased in areas where they had been causing damage. (Gaines).

FOREST, ORNAMENTAL AND SHADE TREE INSECTS

NANTUCKET PINE MOTH (Rhyacionia frustrana) - MARYLAND - Heavy tip injury in Scotch pine plantation noted at Guilford, Howard County. (U. Md., Ent. Dept.).

BUDWORMS (Choristoneura spp.) - MINNESOTA - C. pinus in fifth and sixth instars at Virginia, St. Louis County; feeding in Scotch and Norway pine plantation. C. fumiferana beginning to pupate along Lake Superior from Lutsen to Hovland. (Minn. Ins. Rpt.).

BARK BEETLES - Dendroctonus frontalis now spreading out of control in eastern TEXAS; has killed an estimated 8 million board feet of timber in recent months. Ips spp. developing in salvaged pulpwood in ice-damaged areas of northern LOUISIANA and southern ARKANSAS; threaten nearby weakened trees. (So. For. Pest Rpt., June 21).

BLACK PINE LEAF SCALE (Aspidiotus californicus) - WISCONSIN - Heavily infesting approximately 80 percent of natural and plantation jack pine on 2,000 acres in Polk County. (Wis. Coop. Sur.).

INTRODUCED PINE SAWFLY (Diprion similis) - MINNESOTA - Noted in third instar in Pine and St. Louis Counties. (Minn. Ins. Rpt.). WISCONSIN - Egg stage to mature larvae found in a white pine windbreak in Burnett County during period June 19-25. All trees examined were infested, but little evidence of defoliation was yet apparent as most larvae were in very early instars. (Wis. Coop. Sur.).

RED-HEADED PINE SAWFLY (Neodiprion lecontei) - Has reappeared in western LOUISIANA, with future uptrends expected elsewhere. (So. For. Pest Rpt., June 21). DELAWARE - Larvae numerous and causing heavy feeding injury to several trees in northern New Castle County. (Burbutis, Mason). MARYLAND - Injuring Scotch pine at Guilford, Howard County. (U. Md., Ent. Dept.). MINNESOTA - Oviposition on jack pine observed in Carlton, Cass, Pine and St. Louis Counties. (Minn. Ins. Sur.). WISCONSIN - First-instar larvae noted in Columbia County, June 23. (Wis. Coop. Sur.).

PINE SAWFLIES (Neodiprion spp.) - MINNESOTA - N. pratti banksianae in third instar at Rutledge, Pine County. (Minn. Ins. Rpt.). WISCONSIN - Light infestation of N. nanulus found on isolated 20-acre red pine plantation in Rusk County; third and fourth-instar larvae causing little defoliation. Light infestation also reported from Oconto County, June 19-25. N. swainei ovipositing heavily on June 23 in 2,000-acre area of jack pine in Columbia County, even though first oviposition was reported June 7. Eggs now swelling, with hatching expected soon. (Wis. Coop. Sur.).

LARCH SAWFLY (Pristiphora erichsonii) - WISCONSIN - Eggs, mid and late-instar larvae reported from Washburn County, with all trees in a 20-acre stand appearing to be infested. Eggs reported from all stands examined in Washara County; approximately 90 percent of trees infested June 19-25. Moderate infestation reported on 20 acres of larch in Florence County June 24. (Wis. Coop. Sur.). MINNESOTA - Second and third instars observed in Pine, St. Louis, Carlton and Aitkin Counties. (Minn. Ins. Rpt.).

YELLOW-HEADED SPRUCE SAWFLY (Pikonema alaskensis) - MINNESOTA - Mostly in third instar in Cook, Lake, St. Louis, Carlton, Aitkin and Koochiching Counties. Some tree mortality noted from 1959 feeding. (Minn. Ins. Rpt.).

SMALLER EUROPEAN ELM BARK BEETLE (Scolytus multistriatus) - ILLINOIS - Adults active on trunk of dying elm in McLean County. (Ill. Ins. Rpt.). WISCONSIN - A total of 750 confirmed cases of Dutch elm disease have been reported, as of June 29. First cases were reported from McFarland, Dane County, and Spring Valley Township, Rock County, during the past week. A heavy flight of S. multistriatus was reported at Oshkosh on June 19. Both Hylurgopinus rufipes and S. multistriatus have been laying eggs in dead or dying elm wood. (Wis. Coop. Sur.)

ELM LEAF BEETLE (Galerucella xanthomelaena) - ILLINOIS - Larvae and pupae abundant on Chinese elms at Taylorville, Christian County; foliage seriously damaged. Adults just beginning to emerge. (Ill. Ins. Rpt.). OKLAHOMA - Medium to heavy populations noted on elms in El Reno, Chickasha, Purcell, Pauls Valley, Tishomingo and Lawton, in central and south central sections. Populations in these areas reported to be higher than at same time in 1959. Medium infestation reported on elms checked in Porum area, east central section. Heavy number of adults noted in central section and young larvae should appear in near future. (Lamar, Phelps, McLemore, et al.).

IMPORTED WILLOW LEAF BEETLE (Plagioderma versicolora) - MASSACHUSETTS - First-generation adults remain active; some larvae still found but mostly mature. At least a partial second generation is expected. Some trees in Amherst have been badly damaged. (Wheeler, June 29).

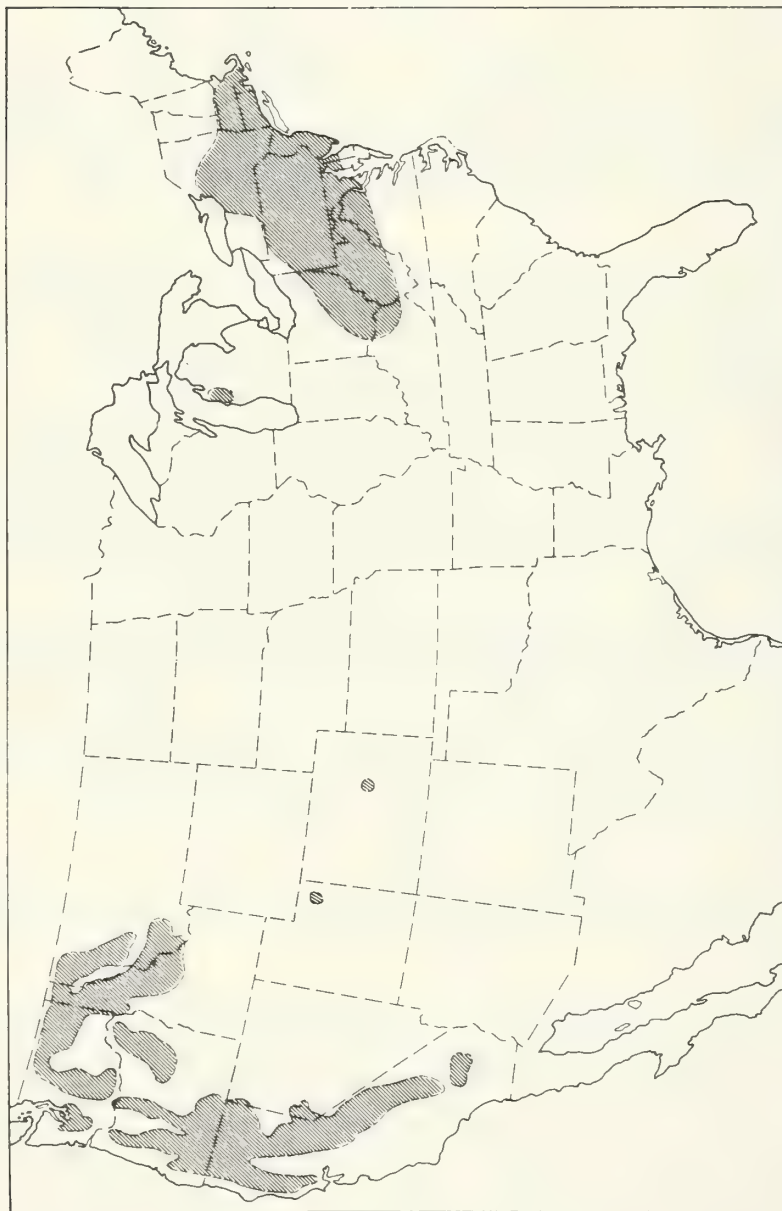
TENT CATERPILLARS (Malacosoma spp.) - NEW YORK - Egg laying, but Malacosoma spp. is extremely heavy on assorted vegetation in Westchester County. (N. Y. Wkly. Rpt., June 27). MARYLAND - Newly deposited egg masses of M. americanum common on wild cherry and apple trees over State. (U. Md., Ent. Dept.). M. disstria again defoliating hardwoods in ALABAMA and LOUISIANA; seriously weakening tupelo and gum trees on an estimated 500,000 acres. (So. For. Pest Rpt., June 21). OREGON - Adults of Malacosoma spp. began emerging in Willamette Valley week of June 24. (Larson).

LARGE ASPEN TORTRIX (Archips conflictana) - MINNESOTA - About 80 percent pupated at Hovland. Some moths emerged June 28. (Minn. Ins. Rpt.).

YELLOW-NECKED CATERPILLAR (Datana ministra) - SOUTH DAKOTA - Reported working on American elm trees in Sioux Falls, Minnehaha County. (Hantsbarger).

EUROPEAN ELM SCALE (Gossyparia spuria) - COLORADO - Crawlers active in Larimer County. (Colo. Ins. Sur.)

DISTRIBUTION OF GOUTY PITCH MIDGE (Retinodiplosis inopis)



Map reproduced from Forest Pest Leaflet 46,
May 1960. Forest Service, USDA.

A KERMES SCALE (Kermes sp.) - OKLAHOMA - Heavy infestations on oaks noted in Muskogee, Bryan and Stephens Counties. (Washum, Robinson, Hatfield, Vinson, VanCleave).

BIRCH LEAF MINER (Fenusa pusilla) - MASSACHUSETTS - First-brood adults laying eggs; second-brood larvae emerging. (Wheeler, June 29).

BAGWORM (Thyridopteryx ephemeraeformis) - IOWA - Infestations in southeast area of State are at very low level after a 3-year period of intense damage to evergreens. (Iowa Ins. Inf., June 25). MISSOURI - Now hatching over State and growing rapidly in southern portion. (Wkly. Rpt. Fr. Gr.). OKLAHOMA - Heavy populations continue to be noted on some evergreens in south central area. (Phelps, McLemore, Perry). TEXAS - Heavy on cedars and evergreens in Comal, Hays, Caldwell and Guadalupe Counties. (Massey). ALABAMA - Causing severe damage to evergreen shrubs in Covington County. (Stephenson).

CATALPA SPHYNX (Ceratonia catalpae) - DELAWARE - Larvae common on catalpa trees in Newark area, New Castle County; causing moderate feeding injury. (Burbutis, Mason). MARYLAND - Mature larvae abundant on catalpa at localities in Prince Georges and Queen Annes Counties. (U. Md., Ent. Dept.). MISSOURI - Defoliating catalpa trees in Audrain County. (Munson, Thomas, Wood).

FALL WEBWORM (Hyphantria cunea) - DELAWARE - Infesting boxwood in Sussex County, June 22. (Burbutis, Mason). INDIANA - First-generation larvae in final instar in Franklin County; infestation light throughout State. (Schuder).

MIMOSA WEBWORM (Homadaula albizziae) - DELAWARE - Webs on mimosas becoming noticeable in several southern areas of State. (Burbutis, Mason). MARYLAND - Webbing becoming noticeable on mimosa and honeylocust in southern sections. (U. Md., Ent. Dept.). INDIANA - First second-generation adults laying eggs June 30 at Lafayette. (Schuder).

A GEOMETRID (Sabulodes caberata) - CALIFORNIA - Heavy populations of this species and a tortricid (Amorbia essigana) occurring on Dondeae in Anaheim, Orange County. (Cal. Coop. Rpt.).

NORTHERN MASKED CHAFER (Cyclocephala borealis) - MARYLAND - Newly emerged adults appearing in great numbers at lights in suburban Prince Georges County. (U. Md., Ent. Dept.).

ROSE CHAFER (Macrodactylus subspinosus) - NEW YORK - Appears to be quite numerous locally this year. (N. Y. Wkly. Rpt., June 27). NORTH CAROLINA - Injuring roses and grapevines throughout Watauga County. (PPC).

ROSE CURCULIO (Rhynchites bicolor) - CALIFORNIA - Damaging cultivated roses in Dutch Flat, Placer County. (Cal. Coop. Rpt.).

SPITTLEBUGS - COLORADO - Clastoptera arborina abundant on junipers in Fort Collins, Larimer County. (Colo. Ins. Sur.). INDIANA - Nymphal infestations of several species occurring in small to moderate numbers on arborvitae and red cedar. (Chandler).

A PYRRHOCORID (Largus cinctus californicus) - CALIFORNIA - Heavy populations on ornamentals in Santa Maria, Santa Barbara County. (Cal. Coop. Rpt.).

SCALE INSECTS - MARYLAND - Moderate infestation of Aspidiotus perniciosus noted on rose at College Park. (U. Md., Ent. Dept.). MICHIGAN - Crawlers of Unaspis euonymi abundant in East Lansing June 22. (Hutson). CALIFORNIA - A. degenerata heavy on camellia at Atwater, Merced County. (Cal. Coop. Rpt.).

A MEALYBUG (Eriococcus n. sp.) - FLORIDA - An apparently undescribed species was collected on dogfennel (Eupatorium sp.) at Zephyr Hills, Hillsborough County, on November 23, 1959, by L. B. Hill and W. T. Walsh. Det. by Harold Morrison. This may possibly be a new United States record. (Fla. Coop. Sur.).

FULGORIDS - KANSAS - Nymphs of unspecified species occurring on several ornamental species in Reno, Crawford and Riley Counties. (Gates, Smith, Peters).

A CRICKET (Oecanthus sp.) - TEXAS - Heavy infestations damaging mesquite trees and other plants in Lynn County; counts of 25 per tree were found. (Whitaker).

INSECTS AFFECTING MAN AND ANIMALS

MOSQUITOES - NORTH CAROLINA - Aedes sollicitans active in Carteret County, but not biting in large numbers. (Ashton). MARYLAND - Aedes vexans annoying at Greenbelt, Prince Georges County; landing rate count was 1 per minute. (U. Md., Ent. Dept.). WISCONSIN - Mosquitoes continue to keep dairy cattle from grazing at night where herds not green fed are turned out to pasture at night. (Wis. Coop. Sur.). MINNESOTA - A total of 876 larval collections were made during period June 19-25, and were composed of the following species: Aedes vexans - 45 percent; A. trivittatus - 5 percent; Aedes spp., probably vexans - 21 percent; Culex restuans - 14 percent; Culiseta inornata - 30 percent. Nine additional species were found in small numbers. Total catch of 16 light traps during period June 12-18 was 41,900 female mosquitoes, and 16,000 during period June 16-25; catch has continued to decline since the latter date. A total of 781 mosquitoes were collected in 80 daytime field collections, of which 582 were A. vexans, 155 A. trivittatus, 25 A. cinereus and the balance, 5 additional species. Eighteen 15-minute collections at dusk totaled 463 mosquitoes, of which 277 were A. vexans, 165 A. trivittatus, 13 A. cinereus and the balance, 4 additional species. (Minn. Ins. Rpt.) SOUTH DAKOTA - Unspecified species continue extremely annoying in eastern part of State. (Mast). IDAHO - Undetermined species very abundant in Teton County. (Bishop).

FACE FLY (Musca autumnalis) - CONNECTICUT - Continuing survey reveals the species is widespread in the State on faces of cattle and in fresh dung. (Brigham). NEW JERSEY - Counts of flies, believed to be this species, were as high as 75 about eyes and nose of dairy animals in a central area herd. The dairyman reported a 20-percent loss in milk production. (Ins.-Dis. Newsl., June 28). INDIANA - Populations building up throughout central and eastern sections. Averaged 15 per beef animal in Upland area, Grant County. Fewer in central and western sections. (Dobson). Counts on cattle in St. Joseph and Marshall Counties ranged 1-26 per animal and 3-18 in Hancock County. (Matthew). ILLINOIS - Counts per animal in central area varied 0-17 and averaged 3.4 per animal. (Ill. Ins. Rpt.).

HOUSE FLY (Musca domestica) - INDIANA - Populations building up in Lafayette area in dirty barns; controls being applied. (Dobson). OKLAHOMA - Populations in Payne County area down and lower than those recorded at this time during 1959. (Howell).

HORN FLY (Siphona irritans) - LOUISIANA - Heavy on cattle in St. John the Baptist Parish. (Spink). OKLAHOMA - Populations have declined on cattle in Payne County area; averaged 500 per mature cow and 1,200-1,500 per bull. (Howell). MISSOURI - Heavy on both beef and dry dairy cattle. (Munson, Thomas, Wood). ILLINOIS - Varied 10-200 and averaged 66 per animal in central section. (Ill. Ins. Rpt.). NEBRASKA - Ranged 75-100 per animal in 4 small herds of Herefords in Lancaster and Johnson Counties. (Simpson). SOUTH DAKOTA - Averaged 52 per head on cattle in Cottonwood vicinity, Jackson County. (Mast).

STABLE FLY (Stomoxys calcitrans) - DELAWARE - Adults numerous and annoying at public beaches in southeastern Sussex County. (Burbutis, Mason). ILLINOIS - Counts per animal in central section varied 0-4 per animal; averaged 1.3. (Ill. Ins. Rpt.). OKLAHOMA - Populations continue to increase on cattle in Payne County area; counts ranged 2-15 per mature unsprayed animal. (Howell).

TABANIDS - LOUISIANA - Heavy infestations of Tabanus spp. reported on cattle and horses in St. John the Baptist Parish. (Spink). INDIANA - A few Tabanus spp. remain on animals. (Dobson). ILLINOIS - Counts of Tabanus spp. varied 0-1 per animal in central area of State. (Ill. Ins. Rpt.). IDAHO - Populations of undetermined species of deer flies increasing in abundance in Bingham County. (Bishop).

BENEFICIAL INSECTS

LADY BEETLES - WYOMING - Hippodamia sp. adults averaged 4 per 25 sweeps in alfalfa fields sampled in Goshen and Laramie Counties. (Fullerton). NEBRASKA - H. convergens numbers increasing; larvae and adults averaged about 1 per sweep. (Simpson). MAINE - Various species appear to have exerted an appreciable degree of control of aphids in some experimental potato plantings on Aroostook Farm at Presque Isle. Eggs began hatching toward the end of the week. (Shands). SOUTH DAKOTA - Small numbers of adults of unspecified species found on alfalfa and small grain in northeastern quarter of the State. (Mast). OKLAHOMA - Light to medium populations of H. convergens, 0.2-2 per sweep, noted in alfalfa; very common in grain sorghum checked in Tillman County; and becoming more common in cotton over the State. (Hatfield, Owens, Vinson, Stiles, Robinson, VanCleave).

MELYRIDES (Collops spp.) - WYOMING - Adults averaged 3 per 25 sweeps of alfalfa in Goshen and Laramie Counties. (Fullerton).

NABIDS (Nabis spp.) - WYOMING - Adults averaged 3 per 25 sweeps in each field of alfalfa sampled in Goshen and Laramie Counties. (Fullerton). SOUTH DAKOTA - Present in very small numbers on northeastern area alfalfa. (Mast). OKLAHOMA - Averaged 0.2-0.8 per sweep in alfalfa checked in State. (Hatfield, Owens, Vinson, Robinson, VanCleave).

LACEWINGS (Chrysopa spp.) - OKLAHOMA - Light numbers (up to 0.2 per sweep) in alfalfa surveyed, showing very little increase in numbers over counts of a month past. (Hatfield, Owens, Vinson, Robinson, VanCleave).

A FLOWER BUG (Orius insidiosus) - NEBRASKA - Populations increasing; averaged 5 per 10 sweeps in alfalfa. (Simpson).

ALKALI BEE (Nomia melanderi) - IDAHO - First emergence has occurred in Bingham County. (Bishop).

PARASITES - MAINE - Potato aphids, parasitized by unspecified species, first appeared on potatoes toward the end of the week of June 25 at the Aroostook Farm near Presque Isle. (Shands).

A CINNABAR MOTH (Tyria jacobaeae) - OREGON - Has completed a portion of its life cycle at a Linn County release site near Scio. At this location, where adults were released in early May (CEIR 10(20):389), a large colony of larvae was observed June 21. (Every, Ritcher).

MISCELLANEOUS INSECTS

JAPANESE BEETLE (Popillia japonica) - NEW YORK - Numerous turf diggings at Poughkeepsie showed a few adults June 21; first adult seen above ground June 24. Peak should occur in State first week in July. (N. Y. Wkly. Rpt., June 27). NEW JERSEY - Beetle buildup encountered in central section. Information and assistance requested from Mercer and Burlington Counties. Regulatory treatments being applied to planes and grounds at McGuire AFB. Buildup in northern and southern sections of State continues light. PENNSYLVANIA - Hazardous condition recognized at Philadelphia International Airport. Foliage spraying begun June 27.

All airlines began aerosoling baggage compartments June 29. One dead beetle found in cabin of jet plane on that date and one live beetle found in cabin of another plane, June 30. Very few adults observed or reported in State other than in Philadelphia area. Very few beetles observed at Pittsburgh airport June 30. Mass emergence is thought not to have taken place, even in Philadelphia area. This heavy emergence is expected within a few days. DELAWARE - Large numbers of adults have emerged over eastern portion of State. The New Castle airport was the site of a heavy flight; foliage spraying and dusting was initiated, as was aerosoling of planes. Only one beetle has been found during daily observations at Dover AFB; no regulatory action has been imposed. MARYLAND - At Friendship Airport, Anne Arundel County, foliage treatment and aerosoling of planes initiated. Infestation is heavy at Andrews AFB, with controls being necessary. (PPC). First adults of season at Frederick, Frederick County, noted on roses June 23. Adults causing homeowners in suburban areas considerable concern by feeding on roses, fruit trees and other preferred hosts, June 27-30. (U. Md., Ent. Dept.). VIRGINIA - Increased emergence reported throughout State. Heavy, spotted feeding, with foliage browning, reported in Campbell, Chesterfield, Dinwiddie, Hanover, Henrico, Nansemond, Norfolk, Prince George and Princess Anne Counties; some heavy feeding reported in eastern Washington County. Light infestation reported in Franklin, Henry, Pittsylvania and Roanoke Counties. Infestation none to light in spots in Accomack and Northampton Counties. Adults reported feeding on oats in field south of Lynchburg, Campbell County. At National Airport, Washington, D. C., no adults observed on the field to date. Daily observations were made, with intensive scouting of the field and surrounding area June 29 and July 1. WEST VIRGINIA - No heavy emergence reported; light emergence reported in Gilmer, Greenbrier, Hampshire, Kanawha, Mercer, Monroe and Summers Counties. NORTH CAROLINA - First adult of season emerged in Hendersonville-Ashville area June 22. Heaviest infestation ever seen in area causing severe injury to corn by feeding in whorls. (PPC). Adults swarming over yard in Forsyth County (Wright) and numerous in alfalfa in Transylvania County (Farrier). INDIANA - Adults present in Marion County, June 30, and in Newton County July 1. (Gould). SOUTH DAKOTA - A total of 94 traps are now set in the State, with railroad and air terminals being the chief locations. (Mast).

EUROPEAN CHAFER (Amphimallon majalis) - NEW YORK - Adults first observed in flight in Marion, Wayne County, area on June 20. (N. Y. Wkly. Rpt.).

A PHYCITID (Acrobasis tricolorella) - OREGON - Blacklight collections indicate adults began emerging in Salem area week of June 24. (Goeden).

A PSYCHID (Apterona crenulella) - CALIFORNIA - Medium to heavy infestation in gardens and in forest fringe in Placerville, El Dorado County. Mud cases heavy in pine twig tips. This is the first record for this county. (Cal. Coop. Rpt.).

A TORTRICID (Epinotia emarginana) - CALIFORNIA - Heavy adult flights occurring in San Anselmo, Marin County. (Cal. Coop. Rpt.).

FLIES - MICHIGAN - A fungus, Empusa sp., readily found on flies occurring on muckland. (Hutson, June 28).

ANTS - MARYLAND - Winged forms of Camponotus pennsylvanicus observed in homes in Montgomery and Harford Counties, while winged forms of Tetramorium caespitum are alarming homeowners in 5 counties over the State. (U. Md., Ent. Dept.).

CORRECTIONS

CEIR 10(27):587 - GREEN CLOVERWORM (Plathypena scarba) should read (Plathypena scabra).

CEIR 10(27):598 - JUNIPER WEBWORM (Dichomeris marginella) should read (Dichomeris marginella).

LIGHT TRAP COLLECTIONS

	Pseud. unip.	Agrot. ips.	Prod. ornith.	Perid. saucia	Protoparce sexta quinq.		Heliothis zea vires.	
ALABAMA								
Auburn 6/28			8			1	29	16
Crossville 6/28	1		3			4	4	
Fairhope 6/28		1				7	15	1
ARKANSAS								
Hope 6/23-29	45	5		19			117	
Fayetteville 6/23-29	19	10					37	
FLORIDA								
Quincy 6/20		4			1		7	
Gainesville 6/28							7	
ILLINOIS								
Urbana 6/24-30	861	22	6	216	9			
INDIANA (Counties)								
Lawrence 6/19-24	292	16	14	48	51	45	1	
Tippecanoe 6/23-30	386	8	7	21	5	4	3	
Vanderburg 6/23-29	48	8	4	47	2	1	8	
IOWA								
Ames 6/18-24	202	6		12				
Ankeny 6/18-24	70	2		1				
Soldier 6/16-21	81	33						
Columbus Junction 6/15-23	345	74					26	
KANSAS								
Garden City 6/22,25-27	64	65		12		32		
Hays 6/23-27	242	54		16		5		
Manhattan 6/23-29	1,761	191	28	143			48	
Mound Valley 6/22-24	75	6		6		3		
Wathena 6/16-21,23	270	230		56		10		
LOUISIANA								
Franklin 6/27,29		4	7		3		8	
Tallulah 6/24-7/1							9	5
MARYLAND								
Fairland 6/22-26	2	3			3	5		
MISSISSIPPI								
*Stoneville 6/24-30	24	37	87	6	22		53	10
MISSOURI								
Columbia 6/26-30	465	132	34	36		12	20	
NEBRASKA								
Kearney 6/23-26	148	102		23		2	10	
Lincoln 6/18-20, 28-29	1,729	38		53			41	
North Platte 6/23-29	448	79	1	110			4	2
Scotts Bluff 6/16-22	30	18		130			1	4
SOUTH CAROLINA								
Charleston 6/20-26		5	103	4	3		33	
Clemson 6/25-7/1	11	8	52	1	7	1	172	14

* Two traps - Stoneville.

LIGHT TRAP COLLECTIONS - Continued

	Pseud. unip.	Agrot. ips.	Prod. ornith.	Perid. saucia	Protoparce sexta quinq.		Heliothis zea vires.	
TEXAS								
Brownsville 6/18-24		469	11		4	20	619	
Waco 6/24-7/1	28	72	57	64			485	1
WISCONSIN								
Waterford 6/21-27	30							
Janesville 6/21-27	42							
Middleton 6/21-27	27	2		3				
*Arlington 6/21-27	149	4		4		1		
*Theresa 6/21-27	72							
Oakfield 6/21-27	91					9		
Johnsburg 6/21-27	3							
Green Bay 6/21-27	16			2				
Fairwater 6/21-27	14					1		
Ripon 6/21-27	14							
La Crosse 6/21-27	402	6		7				
Stevens Point 6/21-27	34							

* Two traps - Arlington; 3 traps - Theresa.

NEW STATE RECORDS OF PESTS REPORTED, JAN. 1 - JUNE 30, 1960

Listed below are 32 pests that have been reported in the Cooperative Economic Insect Report since January 1, 1960, as new State records. The pests are listed alphabetically by scientific name, with the common name (common names approved by the Entomological Society of America in upper case), the state in which recorded and the CEIR page reference in volume 10 following in sequence. A similar list of this nature will be published early in 1961 and will include any new United States records, if any, recorded during 1960. There were no new United States records reported during the previous six-month period.

Pest		Page Reference	
Scientific Name	Common Name	in Volume 10	State
<u>Aceria celtis</u>	a hackberry mite	290	California
<u>Aceria mangiferae</u>	an eriophyid mite	13	Florida
<u>Aceria sheldoni</u>	CITRUS BUD MITE	14	Florida
<u>Adelphocoris lineolatus</u>	ALFALFA PLANT BUG	25	Kentucky
<u>Agathis pumila</u>	a braconid	570	Pennsylvania
<u>Agrotis malefida</u>	PALE-SIDED CUTWORM	526	California
<u>Bruchus brachialis</u>	VETCH BRUCHID	516	Nebraska
<u>Circulifer tenellus</u>	BEET LEAFHOPPER	476	Hawaii
<u>Comperia merceti</u>	a brown-banded roach parasite	291	Missouri
<u>Dichomerus marginella</u>	JUNIPER WEBWORM	134	Florida
<u>Dolerus wanda</u>	a sawfly	327	Illinois
<u>Euborellia cincticollis</u>	an earwig	293	Nevada
<u>Eupelmus popa</u>	an eupelmid wasp	477	Hawaii
<u>Hylobius radialis</u>	PINE ROOT COLLAR WEEVIL	334	Delaware
<u>Hypera meles</u>	a clover head weevil	13	Utah
<u>Hypera nigrirostris</u>	LESSER CLOVER LEAF WEEVIL	401	Louisiana
<u>Matsucoccus gallicolus</u>	a scale insect	531	Delaware
<u>Megachile rotundata</u>	a megachilid bee	337	Utah
<u>Miccotrogus picirostris</u>	CLOVER SEED WEEVIL	377	Utah
<u>Microphylellus modestus</u>	a mirid	474	Delaware
<u>Musca autumnalis</u>	face fly	97 411	Iowa Maryland

- Continued -

PEST		Page Reference	
Scientific Name	Common Name	in Volume 10	State
<u>Ornithonyssus sylviarum</u>	NORTHERN FOWL MITE	533	Arkansas
<u>Phorodon menthae</u>	a mint aphid	492	Virginia
<u>Phyllophaga profunda</u>	a May beetle	366	Florida
<u>Plectris aliena</u>	a scarabaeid	535	Florida
<u>Pseudococcus olivaceus</u>	a mealybug	471	California
<u>Scolytus multistriatus</u>	SMALLER EUROPEAN ELM BARK BEETLE	14	Texas
<u>Silvius pollinosus</u>	a deer fly	445	Nevada
<u>Tegeticula yuccasella</u>	a yucca moth	236	Wisconsin
<u>Tortrix cockerellana</u>	a tortricid	213	Nebraska
<u>Tuckerella pavoniformis</u>	a mite	72	Florida
<u>Zadiprion rohweri</u>	a conifer sawfly	158	Nevada

UNITED STATES DEPARTMENT OF AGRICULTURE
WASHINGTON 25, D. C.

Official Business

POSTAGE AND FEES PAID
U. S. DEPARTMENT OF AGRICULTURE

